

Appl. No.: 10/591,306
Atty. Docket No.: 2005M014
Office Comm. dated November 14, 2008
Amndmt. dated February 17, 2009

SUPPORT FOR THE AMENDMENTS

Claim 1 is amended to point out a specific range of DME present in the propylene-containing stream. Support is believed to be fairly suggested in paragraph 0035.

New Claims 25 and 26 are found at paragraph 0026, and at paragraph 0030, respectively.

It is believed there is no possibility of new matter and entry and consideration of the amendment is respectfully requested.

REMARKS/ARGUMENTS

Claims 1-4, 8-15, and 24-26 are in the case.

The claims were rejected in the parent case over Vora et al. (U.S. 5,714,662) and Cheng et al. (U.S. 2003/0125597), in combination, and further in view of Bahrmann et al. (U.S. 5,808168).

Applicants point out again that the Cheng et al. teaches that the olefin stream is distilled so that dimethyl ether is separated out along with propane, and thus teaches away from the present invention. See, for instance, the first sentence in the Summary of the Invention: "[t]his invention provides a method for removing dimethyl ether (DME) from olefin streams." In contrast, the present invention is directed to the surprising discovery that using rhodium catalysts there is no requirement of separation of DME from the olefin stream. It is believed that the claims in the parent case set forth a method that precluded separation of DME prior to contact of the stream with rhodium. However, this argument was not accepted by the Examiner in the parent case.

The present claims are directed to a process including a step of hydroformylating a propylene containing stream characterized as comprising dimethyl ether in the amount of between 250 ppm and 5000 ppm.

Cheng et al. teaches that there should be preferably no more than 25 wppm dimethyl ether in the feed. See, for instance, paragraph 0015 of Cheng et al.

Cheng et al. never faced the problem of hydroformylation in the presence of dimethyl ether (DME) on the order of 250 ppm to 5000 ppm. As the inventors discuss in the present specification, heretofore it was believed that DME needed to be removed from propylene streams prior to contacting with a hydroformylation catalyst. But with rhodium as the hydroformylation reaction, in accordance with the present claims, this (the removal of DME from the propylene stream) has now been found to be - surprisingly - unnecessary according to the claimed process.

We believe Cheng et al. teaches away from the present invention, because Cheng et al. teaches to remove DME from the propylene stream prior to any downstream processing such as hydroformylation. See, for instance, the first sentence of paragraph [0033], and Figures 2 and 3, of the reference.

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Vora et al. does not pass a separated propylene stream to a hydroformylation reaction, as claimed in the present invention. Rather, the reference teaches converting separated propylene to DIPE. See col. 13, about line 50, over to col. 14, line 7.

Bahrmann et al. does not cure the deficiencies of Vora et al., and/or Cheng et al. While Bahrmann et al. is believed to have been cited solely for its relevance to hydroformylation, i.e., for the proposition that it is known to use rhodium as a hydroformylation catalyst - but not with a propylene stream that has not previously been treated to remove DME.

Accordingly, the references of record taken together do not fairly suggest the invention as set forth in the present claims.

For these reasons, it is respectfully requested that the rejection under §103 be withdrawn.

There being no further issues, Applicants respectfully urge that the present application is in condition for allowance and early indication of such is earnestly solicited.

Respectfully submitted,

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Date

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